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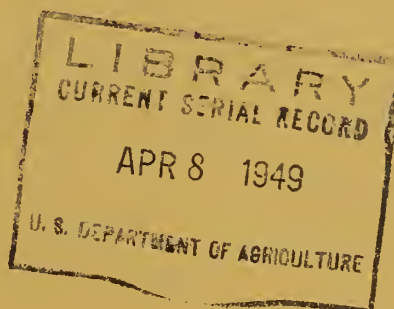
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FEDERAL-STATE COOPERATIVE SNOW SURVEYS and IRRIGATION WATER FORECASTS

for
OREGON

March 1, 1949



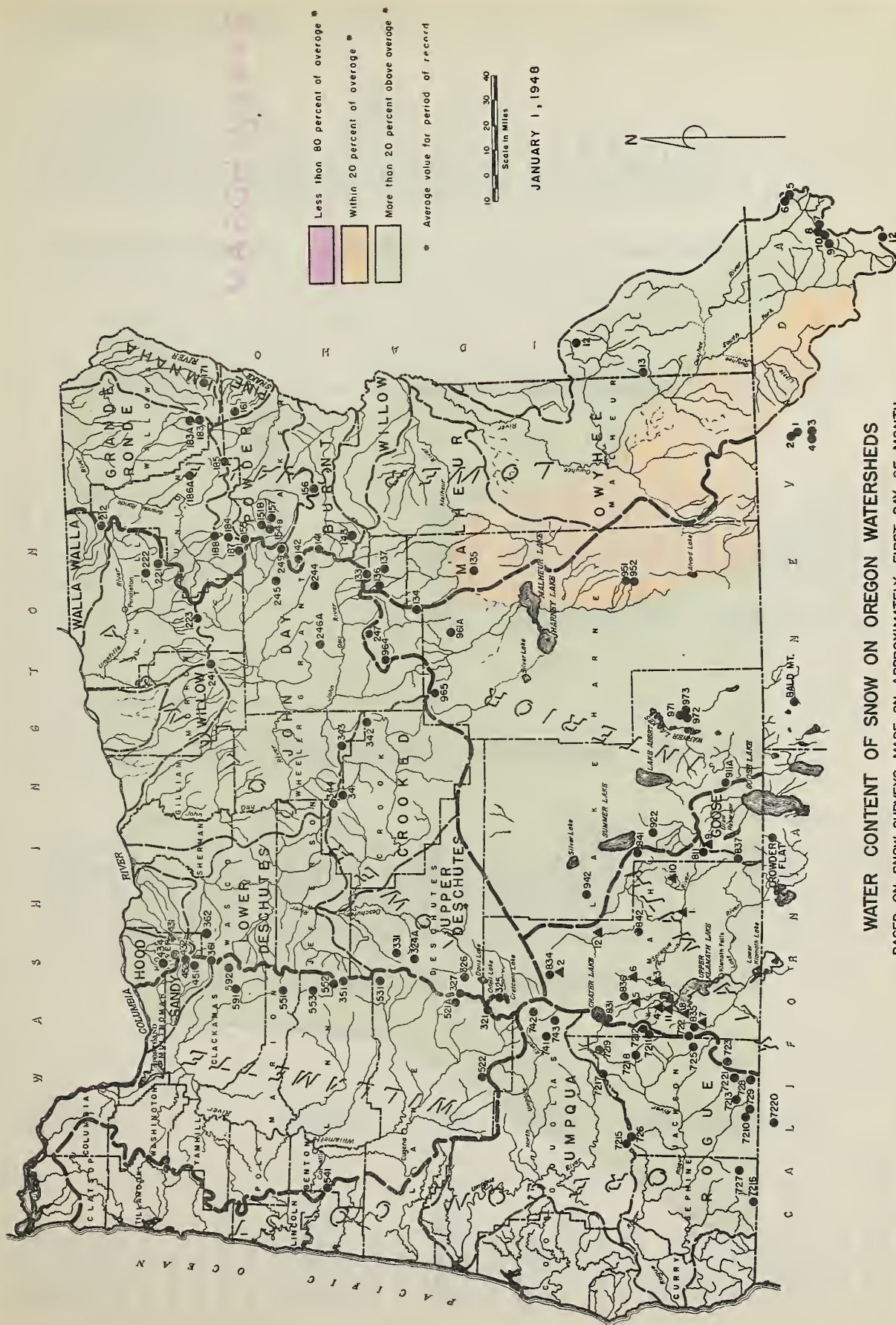
by
Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer,
U.S. Forest Service, National Park Service and other Federal, State, and local organizations

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS
FOR
OREGON

Report Prepared
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WATER CONTENT OF SNOW ON OREGON WATERSHEDS
 BASED ON SNOW SURVEYS MADE ON APPROXIMATELY FIRST DAY OF MONTH
 (Valley Lands Not Necessarily Included)

INDEX TO SNOW COURSES

Number	Name	Elev.	Number	Name	Elev.	Number	Name	Elev.	Number	Name	Elev.
UPPER COLUMBIA DRAINAGE											
Lower Snake in Oregon											
OWYHEE RIVER											
Nev. 6	Big Bend	6800	212	WALLA WALLA RIVER		551	Breitenbush	2325	942	SILVER LAKE	4900
Nev. 1	Bucksakin, Lower	6800		Tollgate	5070	552	Cascade Summit	4880		Silver Creek	
Nev. 2	Bucksakin, Upper	8200				553	Champion	4500		CHEWAGUAN RIVER	
952	Fish Creek	7900		UMATILLA RIVER		554	Hogg Pass	4755	922	Mill Creek	6200
Nev. 7	Fry Canyon	6800	222	Emigrant Springs	3925	555	Marion Forks	4800			
Nev. 5	Gold Creek Ranger Sta.	6000	223	Lucky Strike	5050	541	Mary's Peak	3990			
Nev. 4	Granite Peak	8600	221	Meacham	4300	552	Santiam Junction	3620			
Nev. 9	Jack Creek, Lower	7000	212	Tollgate	5070	521A	Waldo Lake	5500			
Nev. 10	Jack Creek, Upper	7800									
Nev. 3	Martin Creek	7000		WILLOW CREEK							
Nev. 8	Rodeo Flat	7000									
Ida. 12	Silver City	6400	241	Arbuckle Mountain	5400	831	Annie Spring	6018			
951	Silvies	6900				722	Billie Creek Divide	6000			
Ida. 13	South Mountain No. 22	6340		JOHN DAY RIVER		834	Chemlit No. 1	4760			
Nev. 12	Taylor Canyon	5200				Calif.	Crowder Flat	5200			
						723	Hyatt Prairie Reservoir	4900			
						835	Lake of the Woods No. 1	4960			
						811	Quartz Mountain	5320			
						7211	Seven Lakes No. 1	6800			
						7212	Seven Lakes No. 2	6200			
						837	Strawberry	5600			
133	Blue Mountain Spring	5900	241	Arbuckle Mountain	5400	841	Summer Rim	7200	911A	Camas Creek	5720
137	Crane Prairie	5375	246A	Beech Creek Summit	4800	842	Taylor Butte	5100			
136	Lake Creek	5120	133	Blue Mountain Spring	5900						
134	Rock Spring	5100	141	Blue Mountain Summit	5098						
135	Stinking Water	4800	244	Dixie Springs	6650						
			249	Gold Center	5340						
			964	Izee Summit	5293						
			245	Olive Lake	6000						
			965	Snow Mountain	6300						
			247B	Starr Ridge	5150						
BURNT RIVER											
143	Barney Creek	5950		DESCHUTES RIVER		911A	Camas Creek	5720			
141	Blue Mountain Summit	5098	326	Caldwell Ranch	4400	811	Quartz Mountain	5320			
156	Dooley Mountain	5430	321	Cascade Summit	4880	837	Strawberry	5600			
142	Tipton	5100	327	Charlton Lake	5750						
			361	Clear Lake	3500						
			325	Crescent Lake	4760						
155	Anthony Lake	7125	343	Derr	5670						
154	Bourne	5800	351	Hogg Pass	4755						
156	Dooley Mountain	5430	344	Marks Creek	4540						
151B	Ellertson Meadows	5400	324A	New Dutchman Flat	6400						
249	Gold Center	5340	341	Oohoo Meadows	5200						
157	Goodrich Lake	6775	362	Rock Creek	4200						
184	Summit Springs	6000	965	Snow Mountain	6300						
185	Taylor Green	5740	342	Tamarack	4800						
			331	Three Creeks Meadows	5600						
PINE CREEK											
161	Schneider Meadows	5400		HOOD RIVER							
			131	Brooks Meadows	4300						
			134	Red Hill	4400						
			132	Tilly Jane-Mt. Hood	6000						
171	Coverdale	4250		SANDY RIVER							
			361	Clear Lake	3500						
			452	Phlox Point-Mt. Hood	5600						
			451	Still Creek	3700						
GRANDE RONDE RIVER											
183	Aneroid Lake	7480		CLACKAMAS RIVER							
183A	Anthony Lake	7000									
155	Beaver Reservoir	7125									
188	Camp Carson	5340									
187	Moss Spring	5970									
186A	Summit Springs	5850									
185	Taylor Green	5740									
212	Tollgate	5070									
INDEX TO THE CALIFORNIA OREGON POWER COMPANY SNOW WATER STATIONS											
KLAMATH LAKE BASIN											
			1	Beatty	4300						
			2	Chemlit	4761						
			3	Chiloquin	4187						
			4	Crystal	4200						
			5	Fort Klamath	4150						
			6	Kirk	4533						
			7	Lake of the Woods	4200						
			8	Pelican	4200						
			9	Quartz Mountain	5504						
			10	Richardson Ranch	4800						
			12	Yamsey	4600						
GOOSE LAKE BASIN											
			9	Quartz Mountain	5504						
WEST COAST DRAINAGE											
UMPUQUA RIVER											
			522	Champion	4500						
			743	Diamond Lake	5315						
			726	Goolaway Gap	3000						
			7215	Goolaway Mountain	3750						
			742	N. Umpqua near Lake Creek	4215						
			741	Trap Creek	3800						
			7217	Whaleback	5140						
ROGUE RIVER											
			7216	Althouse	4400						
			831	Annie Spring	6018						
			729	Big Red Mountain	6500						
			722	Billie Creek Divide	6000						
			725	Fish Lake	4865						
			726	Goolaway Gap	3000						
			7215	Goolaway Mountain	3750						
			727	Grayback Peak	6000						
			7221	Hobart Lake	5040						
			725	Hyatt Prairie Reservoir	4900						
			7210	Little Red Mountain	6500						
			7220	Sorag Mountain	6200						
			7211	Seven Lakes No. 1	6800						
			7212	Seven Lakes No. 2	6200						
			7219	Silver Burn	3720						
			726	Siskiyou Summit	4650						
			7218	South Fork Canal	3500						
			7213	Wagner Butte	6900						
			7217	Whaleback	5140						

March 1, 1949

PRELIMINARY WATER SUPPLY OUTLOOK

The outlook for Oregon's 1949 water supplies continues to be excellent with mountain snow cover averaging 79% above normal throughout the state except on a portion of the Owyhee and Malheur watersheds where the snow pack is about average. The snow has accumulated during February at a greater than normal rate and already presents a potential flood hazard greater than that of 1948. Reservoired water supplies are generally "good" to excellent."

Oregon's mountain snow cover, as of March 1, averages 179 percent normal and already exceeds the snow pack of April 1, 1948 on 92 percent of the snow courses. The greatest accumulations of snow are on the northern Cascades where individual stations vary from 170 to 786 percent normal and on the Blue Mountains where the pack varies all the way from 109 to 284 percent normal. In general, the snow pack above 5000 feet is 57 percent greater than it was one month ago, 158 percent average and 73 percent greater than at this same date last year. The low-elevation snow lying between 2000 and 5000 feet is now 36 percent greater than one month ago, 233 percent average and 155 percent greater than at this time last year.

The flood potential of the present snow cover is high in many watersheds and could produce severe floods if the snow melt is combined with abnormal rain and temperatures. Record stream flows will likely occur on the Walla Walla, Umatilla, White, Hood, Sandy, and Clackamas Rivers.

Watershed soils are generally well saturated and mostly unfrozen under the snow. This condition favors a well sustained runoff from the spring snow pack.

Total water stored in all reservoirs is only 2 percent less than at this time last year, 20 percent less than in 1947 and 22 percent less than average. Of the more important reservoirs, 52 percent are half full or better. In general, reservoir supplies are "good" to excellent."

The following table compares the 1949 water content of the snow with that of March 1, 1948 and 1947 and with the average for major Oregon drainages:

1949 water content of snow as percent
of that in

<u>Drainage</u>	<u>1948</u>	<u>1947</u>	<u>Average</u>
Owyhee	217	325	140
Malheur	183	227	138
Burnt	154	205	140
Powder	155	172	150
Imnaha	138	142	153
Grande Ronde	147	163	166
Walla Walla	157	231	193
Umatilla	178	316	205
John Day	143	224	151
Crooked	184	644	166
Deschutes	194	232	222
White	312	700	414
Hood	217	-	217
Sandy	214	239	257
Clackamas	304	446	293
Willamette	222	351	255
Umpqua	176	480	200
Upper Rogue	181	230	152
Applegate	234	320	184
Illinois	337	910	202
Klamath Lake	191	233	131
Goose Lake	350	910	144
Silver Lake	3800	-	141
Chewaucan	272	202	130
Warner Lake	278	427	173
Harney Lake	231	539	154

PRELIMINARY STREAMFLOW FORECASTS, MARCH 1, 1949

The following preliminary runoff forecasts are based on present mountain snow cover and on the assumption that average increase of snow cover will occur during March. Greater or less than average increase in mountain snow cover during March will correspondingly modify these estimates:

BASIN AND STREAM	Apr.-Sept., inc. Streamflow in Thous. A.F.				
	Forecast	Measured Runoff		10-yr. avg.	
	1949	1948	1947	1946	1938-47
<u>NORTHCENTRAL OREGON</u>					
Columbia R. at The Dalles	105000.0		98488.0		85740.0
	127590.0		106471.0		
Hood River, W. Fk. near Dee	250.0	a	149.8	164.7	131.8
White R. below Tygh Valley	280.0	a	103.1	181.0	123.1
<u>UMATILLA-WALLA WALLA</u>					
Walla Walla R. So. Fk. nr. Milton	96.0	a	62.7	75.0	62.4
Umatilla R. near Gibbon	140.0	a	53.9	103.5	75.6
Umatilla R. at Pendleton	275.0	a	96.4	194.0	145.1
McKay Ck. above McKay Reservoir	44.0	a	16.1	20.9	25.1
<u>NORTHEASTERN OREGON</u>					
Grande Ronde R. nr. LaGrande	260.0	366.2	118.8	179.6	151.1
Catherine Ck. near Union	90.0	109.9	60.9	76.0	66.3
Bear Ck. near Wallowa	67.0	97.4	69.6	83.4	65.8
Lostine R. near Lostine	138.0	153.5	127.7	149.7	117.5
Hurricane Ck. near Joseph	52.0	59.4	49.9	54.3	43.0
Wallowa R. E. Fk. plus Power Pl.	13.0	a	10.4	13.3	11.1
Imnaha River at Imnaha	400.0	a	228.1	320.5	286.6
Powder River at Salisbury	71.0	78.6	43.6	76.4	57.8
Burnt R. nr. Hereford (Natural Flow)	39.0	62.7	20.2	52.8	35.5
<u>EASTERN OREGON</u>					
Malheur R. Mid. Fk. nr. Drewsey	60.0	74.0	34.1	83.6	75.3
Malheur R. N. Fk. at Beulah	50.0	64.5	32.7	68.9	59.8
Owyhee R. above Owyhee Reservoir	750.0 ^c	280.6 ^c	216.4 ^c	674.2 ^c	547.0 ^c
John Day R. at Prairie City, combined with Power Canal	*	a	38.6	62.2	46.6
John Day R., Mid. Fk. at Ritter	*	a	93.1	140.2	106.4
John Day R., No. Fk. near Dale	*	a	216.5	267.8	217.9
Strawberry Ck. nr. Prairie City	7.8	a	7.9	9.9	8.0
<u>HARNEY BASIN</u>					
Silvies R. near Burns	67.0	133.1	47.7	99.6	88.6
<u>CENTRAL OREGON</u>					
Ochoco Reservoir Net Inflow	25.0	a	8.2	46.4	19.9
Crooked River nr. Post	*	a	40.6	137.3	102.2
Crescent Lake Net Inflow	25.0	a	19.2	22.2	13.7
Little Deschutes R. nr. Lapine	*	a	64.9	114.1	68.2
Odell Ck. near Crescent	39.0	a	28.8	32.6	24.8
Deschutes R. below Snow Creek	*	a	64.5	78.2	48.6
Crane Prairie Reservoir Inflow	*	a		153.6	97.3

a - Discharge Data not available

c - March-July rather than April-

b - April-June rather than April-September

* This station will be forecast on April 1.

(Continued)

BASIN AND STREAM	Apr.-Sept., inc. Streamflow in Thous. A. F.				
	Forecast	Measured	Runoff	10-yr. avg.	
	1949	1948	1947	1946	1938-47
<u>CENTRAL OREGON (Cont'd.)</u>					
Deschutes R. at Benham Falls	*	a	495.1	547.5	449.6
Tumalo Creek and C.S. Canal	60.0	a	49.1	60.9	43.4
Squaw Creek near Sisters	66.0	a	45.7	63.5	44.0
<u>SOUTHCENTRAL OREGON</u>					
Chewaucan R. near Paisley	*	74.5 ^b	32.9 ^b	78.3 ^b	64.6 ^b
Deep Creek above Adel	60.0 ^b	a	29.1 ^b	57.6 ^b	59.4 ^b
<u>KLAMATH BASIN</u>					
Sprague R. above Chiloquin	*	239.9		261.9	
Williamson R. below Sprague R.	*	356.3	223.8	415.4	377.0
Upper Klamath Lake Net Inflow	649.5	474.8	326.2	536.7	484.0 ^d
Clear Lake Res. Net Inflow	72.0 ^d	28.1 ^d	10.4 ^d	50.1 ^d	41.7 ^d
Gerber Res. Net Inflow	152.0 ^d	80.4 ^d	36.9 ^d	78.1 ^d	83.1 ^d
<u>SOUTHERN OREGON</u>					
Applegate R. near Much	140.0	a	64.6	129.6	116.4
Hyatt Res. Net Inflow	7.0	9.1	2.1	5.5	5.3
Fourmile Lake Net Inflow	7.5	11.0	6.0	8.7	6.7
Little Butte Ck. N. Fk. below Fish Lake (Natural Flow)	14.0	a	10.1	15.7	13.2
Rogue R. So. Fk. above Imnaha Ck.	*	a	41.4	63.5	49.6
Rogue R. N. Fk. above Prospect	375.0	343.7	248.8	370.4	282.6
Rogue R. below So. Fk.	*	a	539.9	735.4	613.3
Clearwater River above Trap Ck.	64.0	a	61.4	65.7	58.5
No. Umpqua R. below Lake Creek	168.0	a	157.0	179.1	150.2
<u>WILLAMETTE VALLEY</u>					
Willamette R. Md. Fk. at Eula	1200.0	a	737.1	830.3	704.1
McKenzie R. at McKenzie Bridge	760.0	a	501.2	595.2	500.3
McKenzie River near Vida	1700.0	a	1084.2	1227.8	1054.8
Clackamas R. at Big Bottom	260.0	a	a	178.9	143.3 ^e
a - Discharge data not available d - March-September rather than					
b - April-June rather than April-September April-September					
c - March-July rather than April-September e - 1938-46 only					
* This station will be forecast on April 1.					

COMPARISON OF SNOW COVER AS OF MARCH FIRST WITH THAT OF PREVIOUS YEARS

Snow-stored water now present above 5,000 feet:
 as percent of that present one month ago -- 157
 as percent of that present one year ago -- 173
 as percent of that present two years ago -- 202
 as percent of average -- 158

Snow-stored water now present from 2,000-5,000 feet:
 as percent of that present one month ago -- 136
 as percent of that present one year ago -- 255
 as percent of that present two years ago -- 520
 as percent of average -- 233

Snow water content on 99 percent of all measured courses is greater than at this time in 1948, and in 100 percent of the comparisons is greater than on about March 1 of 1947. Snow water content on 94 percent of all measured courses is greater than average for the period of record.

Comparative table of thirteen scattered snow courses.

Year	Water Content of Snow (Inches) as of about March 1											
	Stream Basin	Clackamas	Grande Ronde	Powder River	John Day-Burnt	John Day-Malheur	Crooked Owyhee	Harney	Walla Walla	Klam.-Desch.	Klam.-Rogue	Rogue Umpqua
	Snow Course	Peavine	Moss Spring	Eilertson Meadows	Blue Mountain	Blue Mountain Springs	Ochoco Meadows	Granite Peak	Izoe Summit	Toll-Chemult	Billie Annie Creek	Diam. Spring Lake

1929												
1930												
1931												
1932												
1933												
1934												
1935				7.3			0.0	11.8				
1936				N.R.			N.R.	13.5	11.0			
1937				N.R.			13.6	7.9	8.3			
1938	13.0	19.6		11.5			10.0	13.5	6.7			
1939	19.2	N.R.		15.1	18.6	15.3	9.6	12.8	9.1	34.6		
1940	7.6	18.0		13.2	10.3	13.9	8.0	15.0	5.2	18.1		
1941	4.3	16.9		10.6	14.0	12.8	9.8	15.7	7.7	15.6		
1942	8.9	13.9		9.1	12.8	12.8	11.6	13.7	8.8	14.1		
1943	28.2	32.1		17.8	23.0	23.0	14.8	18.9	12.8	31.9		
1944	7.3	13.5		5.2	4.6	7.4	6.1	7.4	6.1	19.9		
1945	6.8	16.8		7.0	7.3	10.1	8.2	11.4	5.8	15.3		
1946	19.5	24.1		15.6	12.3	19.6	14.6	13.0	9.7	35.5		
1947	8.5	19.0		3.6	5.2	10.4	3.2	6.8	3.2	19.4		
1948	13.0	26.4		8.3	8.1	11.3	9.1	6.4	7.1	28.6		
1949	37.9	32.1		16.5	13.8	19.1	14.4	7.6	10.9	44.9		

Under-scored is least and greatest March 1 water content of snow of record period for each snow course shown.
 * From COPCO Water Station. N.R. - No report.

STATUS OF SNOW COVER AS OF MARCH FIRST
Summary of Snow Survey Data
By Watersheds as of About March First

STREAM BASIN	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches)			1949 Snow Water Yrs. Depth (Inches) Avg. Past of Yrs. of Rec- Record ord		as Percent of that in 1948 1947 Avg.		
		1949	1948	1947			1948	1947	Avg.
Owyhee River	13	10.4	4.8				217		
	11	10.4		3.2				325	
	14	11.1			7.9	(4-21)			140
Malheur River	5	13.0	7.1				183		
	6	11.6		5.1				227	
	6	11.6			8.4	(4-13)			138
Burnt River	4	11.9	7.7				154		
	4	11.9		5.8				205	
	4	11.9			8.5	(4-13)			140
Powder River	6	24.2	15.6				155		
	6	24.2		14.1				172	
	6	24.2			16.1	(2-12)			150
Imnaha River	3	29.3	21.3				138		
	3	29.3		20.6				142	
	3	29.3			19.1	(4-5)			153
Grande Ronde River	7	31.6	21.5				147		
	7	31.6		19.4				163	
	7	31.6			19.0	(5-12)			166
Walla Walla River	1	44.9	28.6				157		
	1	44.9		19.4				231	
	1	44.9			23.3	(10)			193
Umatilla River	4	25.6	14.4				178		
	4	25.6		8.1				316	
	4	25.6			12.5	(10-12)			205
Willow Creek	-	-	-				-		
	1	15.3		5.9				259	
	1	15.3			9.9	(7)			154
John Day River	7	14.7	10.3				143		
	8	14.8		6.6				224	
	8	14.8			9.8	(7-13)			151
Deschutes River	6	42.1	21.7				194		
	3	54.7		23.6				232	
	6	42.1			19.0	(2-8)			222
Crooked River	3	10.3	5.6				184		
	3	10.3		1.6				644	
	3	10.3			6.2	(6-11)			166
Hood River	2	72.4	33.4				217		
	-	-	-	-			-		
	2	72.4			33.4	(1)			217

(Continued)

STREAM BASIN	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches)			1949 Snow Water Yrs. Depth (Inches) Avg. Past of Yrs. of Rec- as Percent ord of that in		
		1949	1948	1947	Record	1948	1947 Avg.
Sandy River	3	59.7	27.9			214	
	3	59.7		25.0			239
	3	59.7			23.2 (7-11)		257
Clackamas River	2	34.0	11.2			304	
	1	37.9		8.5			446
	2	34.0			11.6 (8-11)		293
Willamette River	7	40.5	18.2			222	
	5	42.5		12.1			351
	7	40.5			15.9 (2-10)		255
Silver Lake Basin	1	3.8	T			3800	
	1	3.8		0.0			-
	1	3.8			2.7 (9)		141
Chewaucan River	1	7.9	2.9			272	
	1	7.9		3.9			202
	1	7.9			6.1 (10)		130
Warner Lake	1	12.8	4.6			278	
	1	12.8		3.0			427
	1	12.8			7.4 (5)		173
Guano Lake	1	5.0	T			5000	
	1	5.0		0.6			833
	1	5.0			3.6 (9)		139
Harney Basin	5	9.7	4.2			231	
	5	9.7		1.8			539
	5	9.7			6.3 (8-13)		154
Umpqua River	3	39.0	22.1			176	
	2	38.4		8.0			480
	3	39.0			19.5 (1-20)		200
Upper Rogue River	11	25.3	14.0			181	
	9	25.3		11.0			230
	11	25.3			16.6 (1-17)		152
Applegate River	3	28.5	12.2			234	
	3	28.5		8.9			320
	3	28.5			15.5 (7-11)		184
Illinois River	2	18.2	5.4			337	
	2	18.2		2.0			910
	2	18.2			9.0 (7-10)		202
Klamath Lake Basin	18*	14.9	7.8			191	
	18*	14.9		6.4			233
	19*	14.7			11.2 (5-22)		131

* Including Copco water measurement stations.



(Continued)

STREAM BASIN	Number of Snow Courses	Average Water Depth in Snow Cover (Inches)			1949 Snow Water Yrs. Depth (Inches) Avg. Past of as Percent Yrs. of Rec- of that in			Avg.
		Averaged	1949	1948	1947	Record	ord	
Goose Lake Basin	3*	9.1	2.6				350	
	3*	9.1			1.0			910
	4*	9.8				6.8 (5-18)		144

* Including Copco water measurement stations.

STATUS OF RESERVOIR STORAGE ABOUT MARCH 1, 1949

BASIN AND STREAM	RESERVOIR	USEABLE CAPACITY (Thous. A. F.)	THOUS. A. F. IN STORAGE ABOUT MARCH 1				
			1949	1948	1947	1946	10-yr. avg. 1938-47
UPPER COLUMBIA DRAINAGE							
LOWER SNAKE IN OREGON							
<u>Owyhee</u>	Antelope	36.5	N.R.	7.0	6.6	11.1	9.8
	Owyhee	715.0	294.9	349.1	541.6	601.7	549.5
<u>Malheur</u>	Warm Springs	191.0	33.5	33.8	120.8	90.8	113.2
	Agency Valley	60.0	40.0	40.5	44.4	43.4	42.5
<u>Burnt</u>	Unity	25.2	8.8	7.3	11.9	11.8	9.9
<u>Powder</u>	Thief Valley	17.4	0.0 ^d	17.4	17.4	17.4	15.5
<u>Grande Ronde</u>	Wallowa Lake	40.9	19.0	17.6	24.8	11.6	21.8
LOWER COLUMBIA DRAINAGE							
<u>Umatilla</u>	McKay	74.0	42.8	66.6	56.7	44.5	43.0
	Cold Springs	50.0	35.0	45.6	43.3	42.0	40.0
<u>Deschutes</u>	Ochoco	46.0	26.2	24.7	27.6	34.6	19.6
	Crescent Lake	80.0	53.2	47.0	50.1	32.3	37.2
	Crane Prairie	50.0	40.0	40.1	40.6	39.3	34.0
	Wickiup	180.0	178.6	134.6	86.6	55.3	40.1e
<u>Willamette</u>	Cottage Grove	30.1b	6.7	9.2	6.0	9.0	7.0e
	Fern Ridge	94.2b	62.8	38.2	26.0	24.0	25.6f
WEST COAST DRAINAGE							
<u>Rogue</u>	Fish Lake	7.7	5.1	3.4	4.3	3.9	4.6
	Fourmile Lake ^a	16.0	7.2	2.3	4.8	5.0	7.0
	Emigrant Gap	8.2	6.7	8.2	4.9	8.2	6.2
	Hyatt Prairie ^a	16.0	7.5	3.1	2.8	3.0	5.9
<u>Klamath</u>	Upper Klamath	584.0 ^c	312.1	314.4	324.1	401.1	402.1
	Gerber	94.0	12.9	23.2	36.8	23.2	40.4
	Clear Lake	440.2	138.1	146.7	211.3	244.1	240.6
<u>Goose Lake</u>	Cottonwood	4.1	0.0	0.3	0.8	0	0.7g
	Drew	62.5	39.1	25.0	27.4	46.3	38.8

N.R. - No Report

a - By ditch to Rogue River side
from Klamath drainage

b - Storage space reserved for flood control

c - Based on gage zero elevation of 4135.0

d - February 14, 1949

e - 1943-47

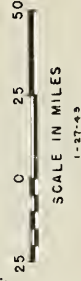
f - 1942-47

g - Excl. '38 and '42

IMPORTANT OREGON RESERVOIRS



RESERVOIR NAME	NUMBER
Agency Valley	1354
Antelope	1230
Clear Lake	823
Clear Lake	36R1
Cold Springs	22R1
Cottage Grove	5220
Cottonwood	8115
Crane Prairie	3220
Crescent Lake	322
Drew Creek	814
Emigrant Gap	7267
Fern Ridge	5413
Fish Lake	7237
Four Mile Lake	8321
Garber	8215
Hyatt Prairie	8320
McKay	2231
Ochoco	3420
Owyhee	1234
Rock Creek	36R3
Thief Valley	1514
Thompson Valley	9411
Unity	1415
Upper Klamath Lake	832
Wallowa Lake	186
Worm Springs	1322
Wickiup	3137
Willow Creek No. 3	1323



VALLEY PRECIPITATION^a

DRAINAGE DIVISIONS	CURRENT YEAR		LAST YEAR	
	Oct. 1, 1948 - Mar. 1, 1949		Oct. 1, 1947 - Mar. 1, 1948	
	P	D	P	D
Southeastern	3.31	-1.67	3.99	-0.97
Southcentral	3.88	-1.39	8.18	-1.07
Central	5.96	-0.22	8.80	+2.13
Columbia River	10.67	+1.08	10.21	+2.71
Wallowa Mountains	7.21	-0.36	7.92	-0.36
Blue Mountains	7.75	-0.07	10.92	+1.37
Southern	14.66	-1.01	16.84	+1.07
Willamette Valley	42.29	+6.95	42.86	+8.17

P - Inches Precipitation

D - Inches Departure from Normal

<u>Southeastern</u> -	Malheur and Owyhee drainages.
<u>Southcentral</u> -	Interior Basin drainages and Goose Lake.
<u>Central</u> -	Deschutes and Crooked drainages.
<u>Columbia River</u> -	Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages.
<u>Wallowa Mountains</u> -	Imnaha, Wallowa, Catherine, Eagle and Pine drainages.
<u>Blue Mountains</u> -	Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages.
<u>Southern</u> -	Umpqua, Rogue and Klamath drainages.
<u>Willamette Valley</u> -	All Willamette drainages.

Note: There is greater than usual difference between valley precipitation, now 94 percent normal, and accumulated mountain snow, now 179 percent normal in the state. It is obvious that considerable caution should therefore be employed in attempting to forecast stream discharge from precipitation rather than snow data.

a - Preliminary data computed from Weather Bureau records.

OREGON SNOW SURVEYS, MARCH 1949

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS										Past Record Years of Reoord	Av. Water Content (Inches)	
	Number or State	Sec. Twp. Range Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)					1947					
					1949	1948	Same approx. Date	1948							
<u>U P P E R C O L U M B I A D R A I N A G E</u>															
<u>L O W E R S N A K E I N O R E G O N</u>															
OWYHEE RIVER															
Big Bend	Nev.	30	45N	56E	6800	2-25	45.3	14.3*	6.3	5.3	20	8.7			
Fry Canyon	Nev.	32	43N	54E	6800	2-26	50.2	15.2*	5.0	4.3	15	8.8			
Gold Ck. Ranger Sta.	Nev.	32	45N	56E	6600	2-25	35.4	10.4*	4.9	3.2	17	6.5			
Granite Peak	Nev.	27	44N	39E	8600	3-1	25.5	7.6*	6.4	6.8	17	9.5			
Lower Buckskin	Nev.	25	45N	39E	6800	3-2	42.6	13.0*	7.8	-	15	8.5			
Lower Jack Creek	Nev.	19	42N	53E	7000	3-1	20.8	4.9*	2.8	1.2	21	4.9			
Martin Creek	Nev.	24	44N	39E	7000	3-1	26.8	7.5*	6.8	3.8	17	7.9			
Rodeo Flat	Nev.	31	43N	54E	7000	2-27	51.0	17.2*	6.2	4.7	15	9.7			
Silver City	Idaho	6	5S	3W	6400	3-1	57.0	19.3	-	-	4	12.0			
Taylor Canyon	Nev.	32	39N	53E	5200	2-28	31.3	8.8*	1.3	0.5	14	5.8			
Upper Buckskin	Nev.	14	45N	39E	8200	3-3	28.2	8.7*	8.2	-	15	10.4			
Upper Jack Creek	Nev.	9	42N	53E	7800	3-1	40.2	13.1*	7.3	5.4	13	9.8			
MALHEUR RIVER															
Barney Creek	143	16	14S	36E	5950	3-1	37.2	10.8	6.0	6.7	4	7.0			
Blue Mtn. Spring	133	21	15S	35E	5900	3-1	57.6	19.1*	11.3	10.4	13	14.3			
Crane Prairie	137	24	16S	34E	5375	3-1	43.5	13.9*	6.7	5.8	10	8.8			
Lake Creek	136	10	16S	33½E	5120	3-1	42.7	12.7*	7.6	5.5	10	10.0			
Rock Spring	134	23	18S	32E	5100	2-25	29.3	8.7*	4.1	2.0	13	6.4			
Stinkingwater	135	33	21S	34E	4800	2-27	15.7	4.7	-	0.0	10	4.2			
BURNT RIVER															
Barney Creek	143	16	14S	36E	5950	3-1	37.2	10.8	6.0	6.7	4	7.0			
Blue Mtn. Summit	141	6	12S	36E	5098	2-27	42.5	13.8	8.1	5.2	13	8.4			
* Telegraphic - Subject to minor revision. c Abt. 3-1-49															

* Telegraphic - Subject to minor revision.

c Abt. 3-1-49



OREGON SNOW SURVEYS, MARCH, 1949

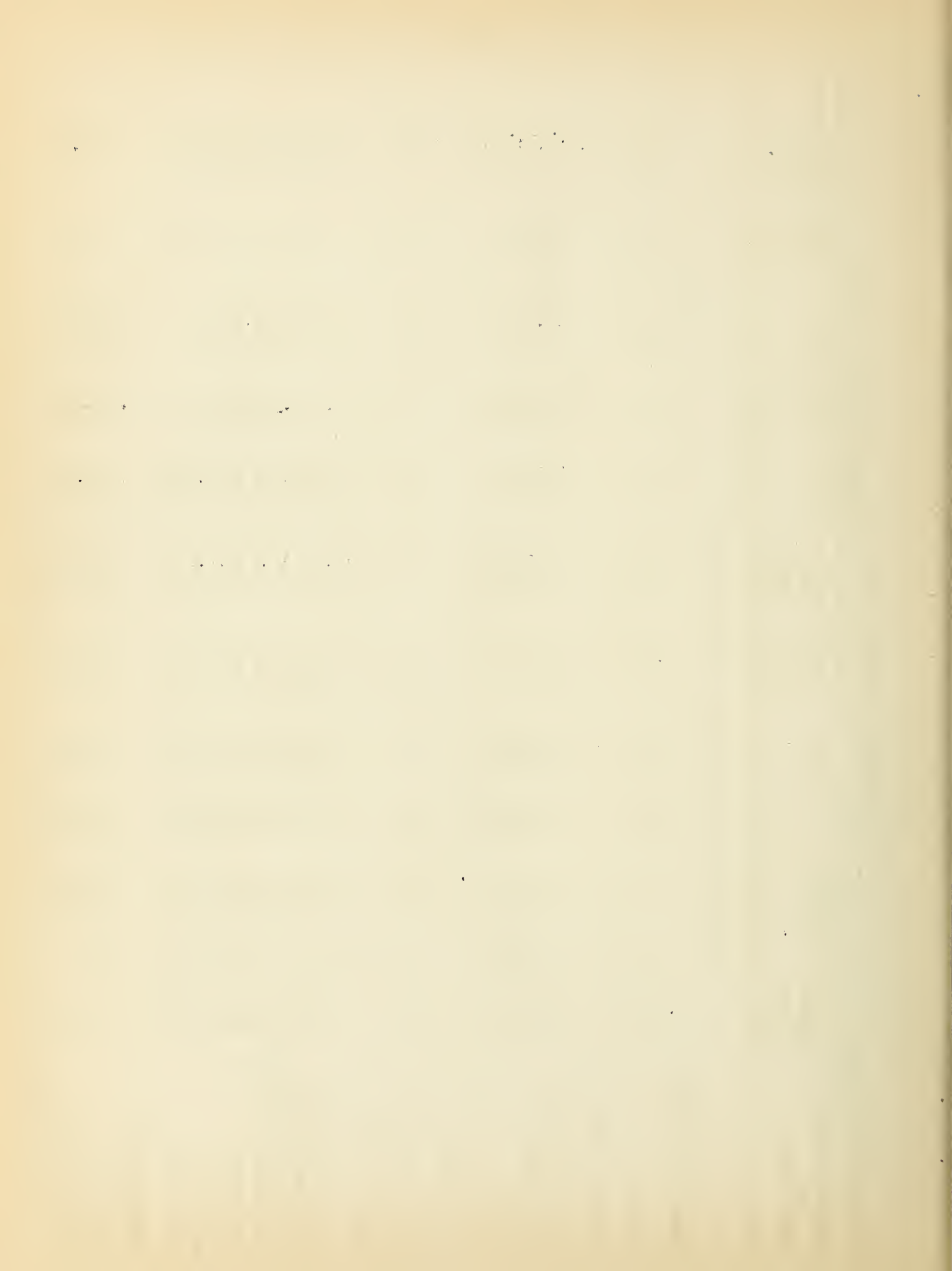
DRAINAGE BASIN and SNOW COURSE	LOCATION			SNOW COVER MEASUREMENTS				
	Number or State	Sec. Twp. Range Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)		Fast Record	
					Same approx. Date	1947		
BURNT RIVER (Cont'd.)								
Dooley Mountain Tipton	156	32 11S 40E 5430	2-28	40.2	12.2	6.6	3.8	10 8.6
	142	34 10S 35½E 5100	3-1	44.9	10.8	10.2	7.7	6 9.9
POWDER RIVER								
Anthony Lake	155	18 7S 37E 7125	2-27	94.9	36.3	22.1	28.8	9 22.6
Bourne	154	33 8S 37E 5800	2-27	68.5	21.5	11.8	11.2	12 13.3
Dooley Mountain	156	32 11S 40E 5430	2-28	40.2	12.2	6.6	3.8	10 8.6
Eilertson Meadows	151B	18 8S 38E 5400	2-25	53.2	16.5	8.3	3.6	11 10.6
Gold Center	249	21 9S 36E 5340	2-28	52.4	16.1	11.8	9.0	9 11.0
Goodrich Lake	157	34&35 38E 6775	3-1	110.9	42.6	32.8	28.3	2 30.6
Taylor Green	185	3 6S 42E 5740	3-2	71.7	24.7	No previous March survey.		
IMNAHA RIVER								
Aneroid Lake #1	183	16 4S 45E 7480	2-26	102.2	37.4	29.1	32.1	5 26.9
Aneroid Lake #2	183A	16 4S 45E 7000	2-26	83.5	33.0	24.5	25.3	5 21.0
Coverdale	171	22 5S 47E 4250	2-24	56.9	17.4	10.4	4.5	4 9.4
GRANDE RONDE RIVER								
Camp Carson	187	33 6S 36E 5970	2-27	52.1	17.0	No previous March Survey		
Aneroid Lake #1	183	16 4S 45E 7480	2-26	102.2	37.4	29.1	32.1	5 26.9
Aneroid Lake #2	183A	16 4S 45E 7000	2-26	83.5	33.0	24.5	25.3	5 21.0
Anthony Lake	155	18 7S 37E 7125	2-27	94.9	36.3	22.1	28.8	9 22.6
Beaver Reservoir	188	8 5S 37E 5340	3-1	51.8	16.7	10.7	8.0	10 10.8
Meacham	221	24&25 1S 35E 4300	2-25	59.1	20.6	9.3	3.0	12 8.8
Moss Spring	186A	28 3S 41E 5850	3-1	86.0	32.1	26.4	19.0	10 20.0
Tollgate	212	32 4N 38E 5070	2-25	118.2	44.9	28.6	19.4	10 23.3
Summit Springs	184	9 6S 37E 6000	2-28	69.2	22.9	No previous March Survey.		
Taylor Green	185	3 6S 42E 5740	3-2	71.7	24.7	No previous March Survey.		

OREGON SNOW SURVEYS, MARCH, 1949

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS										
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)			Years of Record	Past Record av. Water Content (Inches)	
								1949	1948	Same approx. Date			
L O W E R C O L U M B I A D R A I N A G E													
WALLA WALLA RIVER													
Tollgate	212	32	4N	38E	5070	2-25	118.2	44.9	28.6	19.4	10	23.3	
UMATILLA RIVER													
Emigrant Springs	222	29	1N	35E	3925	2-25	51.2	19.0	8.0	0.2	12	6.7	
Lucky Strike	223	28	3S	32E	5050	2-24	57.8	17.7	11.6	9.9	10	11.2	
Meacham	221	24&25	1S	35E	4300	2-25	59.1	20.6	9.3	3.0	12	8.8	
Tollgate	212	32	4N	38E	5070	2-25	118.2	44.9	28.6	19.4	10	23.3	
WILLOW CREEK													
Arbuckle Mountain	241	33	4S	29E	5400	2-28	44.2	15.3	-	5.9	7	9.9	
JOHN DAY RIVER													
Arbuckle Mountain	241	33	4S	29E	5400	2-28	44.2	15.3	-	5.9	7	9.9	
Beech Creek Summit	246A	4	12S	30E	4800	c3-1	24.7	8.7*	4.2	0.4	12	5.8	
Blue Mountain Springs	133	21	15S	35E	5900	c3-1	57.6	19.1*	11.3	10.4	13	14.3	
Blue Mountain Summit	141	6	12S	36E	5098	2-27	42.5	13.8	8.1	5.2	13	8.4	
Gold Center	249	21	9S	36E	5340	2-28	52.4	16.1	11.8	9.0	9	11.0	
Izee Summit	964	28	16S	29E	5293	c3-1	36.7	10.9*	7.1	3.2	13	7.8	
Olive Lake	245	14	9S	33E	6000	2-25	75.0	25.2	25.9	16.7	13	16.0	
Starr Ridge	247B	20	15S	31E	5150	c3-1	30.2	9.0*	3.7	1.6	13	5.5	
CROOKED RIVER													
Marks Creek	344	25	12S	19E	4540	2-28	23.7	7.7	3.0	0.0	11	4.2	
Ochoco Meadows	341	21	13S	20E	5200	2-28	44.9	14.4	9.1	3.2	13	9.1	
Tamarack	342	8	15S	25E	4800	3-1	28.5	8.7	4.7	1.5	6	5.2	
* Telegraphic Subject to minor revision													
c Abt. 3-1-49													

* Telegraphic - Subject to minor revision

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OREGON SNOW SURVEYS, MARCH, 1949

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS											
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content		1947	1948	1949	Fast Record Years of Record	av. water Content (Inches)
								Same	Date approx.					
DESCHUTES RIVER														
Cascade Summit	321	7	23S	6E	4880	3-1	89.3	40.3*	24.8	-	4	23.4		
Clear Lake	361	29	4S	9E	3500	2-26	78.7	31.5	10.1	4.5	7	7.6		
New Dutchman Flat	324	21	18S	9E	6400	2-23	158.3	61.6	36.3	36.0	2	36.2		
Hogg Pass	351	24	13S	7½E	4755	2-28	158.3	70.9	34.2	30.3	8	32.0		
Crescent Lake	325	11	24S	6E	4760	3-1	40.5	17.5*	8.2	-	2	4.1		
Three Creeks Mdws.	331	3	17S	9E	5600	2-22	87.1	30.7	16.4	-	2	10.8		
HOOD RIVER														
Red Hill	434	21	1S	9E	4400	2-27	173.8	78.0	35.6	-	1	35.6		
Tilly Jane-Mt. Hood	432	15	2S	9E	6000	2-26	157.6	66.9	31.2	-	1	31.2		
SANDY RIVER														
Clear Lake	361	29	4S	9E	3500	2-26	78.7	31.5	10.1	4.5	7	7.6		
Phlox Point-Mt. Hood	452	6	3S	9E	5600	2-28	206.3	98.9	53.8	58.3 ^b	11	45.8		
Still Creek	451	25	3S	8½E	3700	3-1	114.2	48.8	19.7	12.2	11	16.1		
CLACKAMAS RIVER														
Clackamas Lake	592	35	5S	8½E	3400	2-26	78.5	30.0	9.5	-	8	10.9		
Peavine Ridge	591 14&15	6S	7E	3500	3-4	87.6	87.6	37.9	13.0	8.5	11	12.4		
WILLAMETTE RIVER														
Breitenbush	551	21	9S	7E	2325	2-28	49.5	17.3	3.3	4.4	7	2.2		
Cascade Summit	321	7	23S	6E	4880	3-1	89.3	40.3*	24.8	-	4	23.4		
Champion	522	12	23S	1E	4500	3-1	103.8	46.9	19.6	5.8	10	18.2		
Hogg Pass	351	24	13S	7½E	4755	2-28	158.3	70.9	34.2	30.3	8	32.0		
Marion Forks	553	28	11S	7E	2730	2-28	77.8	32.9	9.8	7.6	8	8.7		

* Telegraphic -- subject to minor revision

b - March 11



OREGON SNOW SURVEYS, MARCH, 1949

DRAINAGE BASIN and SNOW COURSE	LOCATION	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Snow Course Measurements				Years of Record	Record Content (Inches)
									1948	1949	1950	1951		

WILLAMETTE RIVER (Cont'd.)

McKenzie	531	35	15S	7 $\frac{1}{2}$ E	4800	2-27	162.8	64.2	No previous	March survey			8	16.3
Santiam Junction	552	14	13S	7E	3990	2-28	102.9	44.6	19.5	12.5			2	10.8
Three Creek Meadows	331	3	17S	9E	5600	2-22	87.1	30.7	16.4	-				

I N T E R I O R D R A I N A G E

SILVER LAKE

Silver Creek	942	25&26	29S	13E	4900	2-27	12.2	3.8	T	0.0			9	2.7
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CHEMAUCAN RIVER

Mill Creek	922	1	34S	17E	6200	2-25	29.7	7.9	2.9	3.9			10	6.1
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HARNEY BASIN

Deer Creek	973	17	36S	26E	6670	3-2	30.6	12.8	3.1	0.1			8	6.1
Idylwild Camp	961A	33	20S	31E	5200	2-25	27.8	7.3*	3.2	1.9			13	5.9
Izee Summit	964	28	16S	29E	5293	3-1	36.7	10.9*	7.1	3.2			13	7.8
Rock Spring	134	23	18S	32E	5100	2-25	29.3	8.7*	4.1	2.0			13	6.4
Starr Ridge	247B	20	15S	31E	5150	3-1	30.2	9.0	3.7	1.6			13	5.5

WARNER LAKE

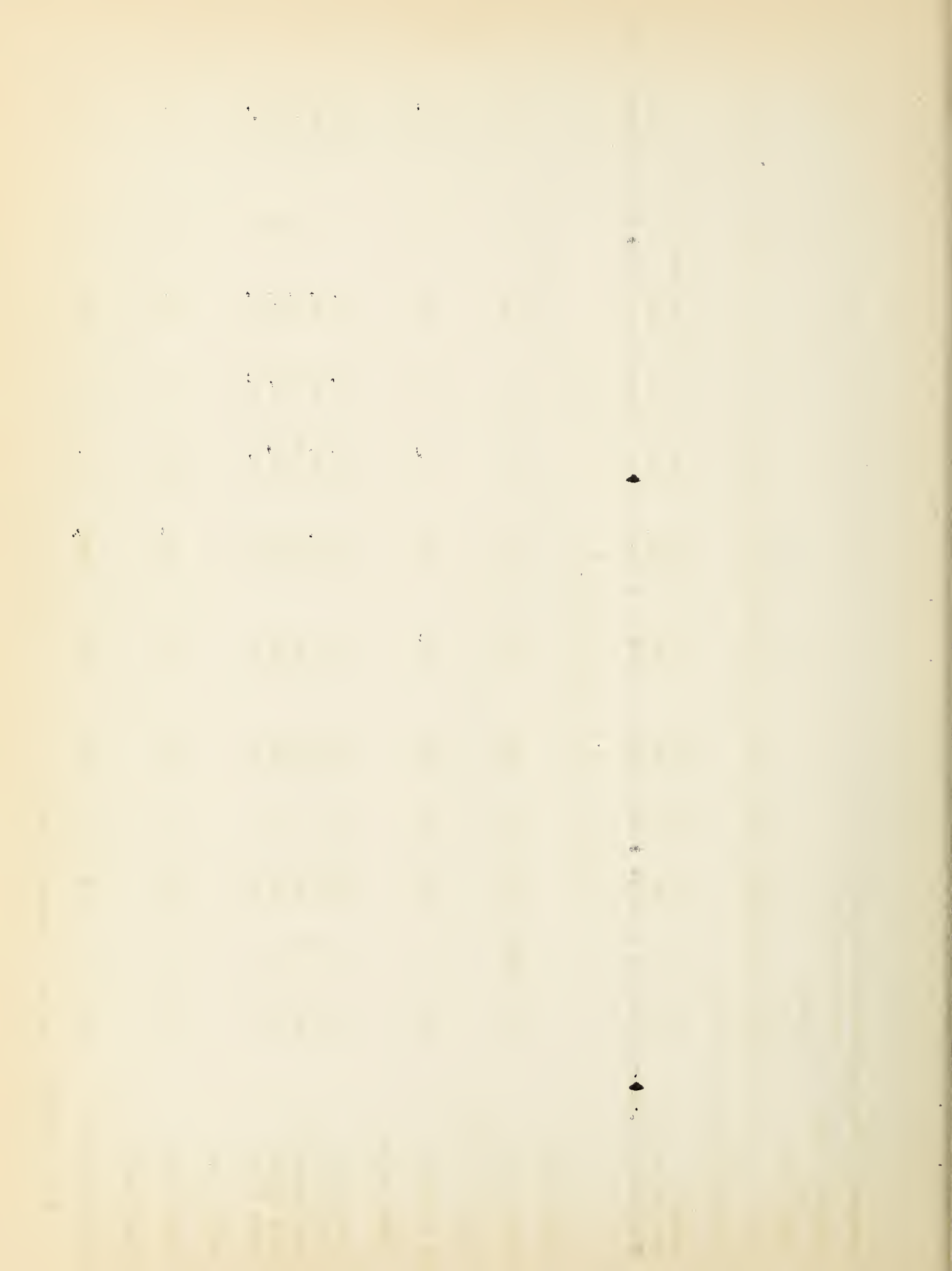
Camas Creek	911A	5	39S	21E	5720	2-26	37.5	12.8	4.6	3.0			5	7.4
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GUANO LAKE

Bald Mountain	Nev.	17	45N	21E	6720	2-28	19.9	5.0	T	0.6			9	3.6
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* Telegraphic - subject to minor revision

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OREGON SNOW SURVEYS, MARCH, 1949

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS									
	Number or State	Sec. Twp. Range	Elev	Date of Survey	Snow Depth (In.)	Water Content (In.)						
						1949	1948	1947	Years of Record	Past Records		
							Date			Content		(Inches)
WEST COAST DRAINAGE												
UMPUQUA RIVER												
Champion	522	12	23S 1E	4500	3-1	103.8	46.9	19.6	5.8	10	18.2	
Diamond Lake	743	29	27S 6E	5315	2-28	77.4	29.8	21.9	10.1	20	15.6	
ROGUE RIVER												
Althouse	7216	17	41S 7W	4400	3-1	23.3	8.2	0.5	0.0	10	3.9	
Annie Spring	831	19	31S 6E	6018	2-26	120.7	45.0	33.2	29.8	15	35.6	
Billie Creek Divide	722	30	36S 5E	5300	2-18	100.6	25.6	20.2	12.1	17	21.1	
Fish Lake	725	3	37S 4E	4865	2-19	86.1	19.3	7.8	4.0	14	11.6	
Grayback Peak	727	9	40S 5W	6000	2-28	70.1	28.3	10.3	4.0	7	14.2	
Hobart Lake	7221	17	40S 3E	5010	2-28	26.3	9.8	1.2	-	11	1.2	
Hyatt Prairie Res.	723	15	39S 3E	4900	3-1	43.9	15.4	6.3	2.6	16	9.5	
Park Headquarters	838	8	31S 6E	6450	2-26	148.0	59.1	37.0	39.6	5	47.5	
Scrags Mtn. (Calif.)	7220	9	47N 10W	6200	3-4	81.5	36.6	13.2	13.4	7	19.1	
Silver Burn	7219	30	30S 4E	3720	3-1	49.8	19.5	8.0	1.5	12	9.2	
Siskiyou Summit	728	17	40S 2E	4630	2-26	36.5	12.4	1.6	0.0	13	5.2	
South Fork Canal	7218	12	33S 3E	3500	3-2	31.2	11.1	0.6	0.0	12	3.2	
Wagner Butte	7213	1	40S 1W	6900	3-2	59.2	20.6	13.1	9.2	11	13.3	
Whaleback	7217	3	31S 2E	5140	3-1	104.5	40.2	24.8	-	1	24.8	
KLAMATH LAKE BASIN												
Annie Spring	831	19	31S 6E	6018	2-26	120.7	45.0	33.2	29.8	15	35.6	
Beatty 2/		22	36S 12E	4300	2-28	0.0	0.0	0.0	0.0	22	0.2	
Billie Creek Divide	722	30	36S 5E	5300	2-18	100.6	25.6	20.2	12.1	17	21.1	
Bly 101 Ranch 2/		22	36S 14E	4800	2-28	8.2	2.6	0.0	0.0	22	1.7	
Chemult No. 1	834	21	27S 8E	4760	3-1	37.0	15.7	5.6	3.3	12	9.8	

2/ Water content determined by melting one measured sample (The California Oregon Power Company's Station.)

1	1891	1891	1891
2	1892	1892	1892
3	1893	1893	1893
4	1894	1894	1894
5	1895	1895	1895
6	1896	1896	1896
7	1897	1897	1897
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23	1913	1913	1913
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30	1920	1920	1920
31	1921	1921	1921
32	1922	1922	1922
33	1923	1923	1923
34	1924	1924	1924
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36	1926	1926	1926
37	1927	1927	1927
38	1928	1928	1928
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123	2013	2013	2013
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276	2166	2166	2166
277	2167	2167	2167
278	2168	2168	2168
279	2169	2169	2169
280	2170	2170	2170
281	2171	2171	2171
282	2172	2172	2172
283	2173	2173	2173
284	2174	2174	2174
285	2175	2175	2175
286	2176	2176	2176
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288	2178	2178	2178
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300	2190	2190	2190
301	2191	2191	2191
302	2192	2192	2192
303	2193	2193	2193
304	2194	2194	2194

OREGON SNOW SURVEYS, MARCH, 1949

DRAINAGE BASIN and SNOW COURSE		LOCATION		SNOW COVER MEASUREMENTS								
		Number or State	Sec. Twp. Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content (%)	1947	1948	Years of Record	Fast Record Avg. Water Content (Inches)	
KLAMATH LAKE BASIN (Cont'd.)												
Chiloquin 2/ Gerber	839	34	34S 7E	4187	2-28	9.0	4.1	0.0	0.0	19	1.5	
		12	39S 13E	4850	2-28	13.2	4.7	New snow course				
Crowder Flat (Calif)		30	47N 11E	5200	3-1	16.9	6.9	0.0	0.0	8	3.0	
Crystal 2/ For Klamath 2/ Harriman ledge 2/ Hyatt Prairie Res.	723	26	34S 6E	4200	2-28	29.0	6.8	6.5	0.0	19	7.7	
		22	33S 7½E	4150	2-28	11.8	4.5	0.5	0.0	22	3.8	
		3	36S 6E	4200	3-1	22.0	7.0	0.0	0.0	22	3.8	
		15	39S 3E	4900	3-1	43.9	15.4	6.3	2.6	16	9.5	
Kirk 2/ Lake of the Woods #1 Park Headquarters	835	1	33S 7E	4533	3-1	30.0	7.0	1.0	T	21	6.0	
		11	37S 5E	4960	2-27	47.2	11.4	4.2	2.1	12	7.5	
Quartz Mountain	838	8	31S 6E	6450	2-26	148.0	59.1	37.0	39.6	5	47.5	
Quartz Mountain 2/ Summer Rim	841	2	38S 16E	5320	3-1	26.3	8.5	0.2	0.0	10	5.3	
		33	37S 16E	5504	3-1	25.0	6.0	3.0	0.0	18	6.6	
Sun Mountain	836	15	33S 16E	7200	2-28	44.5	15.3	8.3	9.8	9	12.2	
		22	32S 7½E	5350	2-28	78.4	29.0	14.4	15.4	11	22.7	
Strawberry	837	4	40S 16E	5600	3-2	34.3	12.0	-	-	8	8.1	
GOOSE LAKE BASIN												
Camas Creek	911A	5	39S 21E	5720	2-26	37.5	12.8	4.6	3.0	5	7.4	
Quartz Mountain	811	2	38S 16E	5320	3-1	26.3	8.5	0.2	0.0	10	5.3	
Quartz Mountain 2/ Strawberry	837	33	37S 16E	5504	3-1	25.0	6.0	3.0	0.0	18	6.6	
		4	40S 16E	5600	3-2	34.3	12.0	-	-	8	8.1	

2/ Water content determined by melting one measured sample (The California Oregon Power Company's station).

APPENDIX

(Delayed data and special snow surveys)

Snow survey data received too late to be published
in the February report and special mid-February snow
surveys.



OREGON SNOW SURVEYS, FEBRUARY, 1949

LOCATION

SNOW COVER MEASUREMENTS

DRAINAGE BASIN And SNOW COURSE	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)			Past Record	
								1949	1948	1947	Years or Record	Ave. Water Content (Inches)
DESCHUTES RIVER												
Cascade Summit	321	7	23S	6E	4880	2-18	111.0	41.0	Special measurement			
HOOD RIVER												
Greenpoint Reservoir	433	28	2N	9E	3400	2-3	75.8	24.9	7.4	-	1	7.4
Red Hill	434	21	1S	9E	4400	2-13	161.0	73.5	25.4	-	1	23.4
CLACKAMAS RIVER												
Peavine Ridge	591	14&15	6S	7E	3500	2-16	95.5	29.2	Special measurement			
WILLAMETTE RIVER												
Cascade Summit	321	7	23S	6E	4880	2-18	111.0	41.0	"	"	"	
Champion	522	12	23S	1E	4500	2-14	115.4	35.8	"	"	"	
UMPQUA RIVER												
Champion	522	12	23S	1E	4500	2-14	115.4	35.8	"	"	"	
Diamond Lake	743	29	27S	6E	5315	2-15	98.5	27.1	"	"	"	
ROGUE RIVER												
Annie Spring	831	19	31S	6E	6018	2-12	128.8	43.1	"	"	"	
Billie Creek Divide	722	30	36S	5E	5300	2-18	100.6	25.6	13.4	9.8	17	14.2
Fish Lake	725	3	37S	4E	4865	2-19	86.1	19.3	4.6	6.0	15	8.4
Hyatt Prairie Res.	723	15	39S	3E	4900	2-14	50.8	15.7	Special measurement			
Silver Burn	7219	30	30S	4E	3720	2-14	69.8	20.2	"	"	"	
Siskiyou Summit	728	17	40S	2E	4630	2-12	49.0	12.6	"	"	"	

OREGON SNOW SURVEYS, FEBRUARY, 1949

DRAINAGE BASIN and SNOW COURSE		LOCATION		SNOW COVER MEASUREMENTS										
				Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)			Past Record Years of Record
1949	1948	1947	Record											
KLAMATH		835	11	37S	5E	4960	2-15	61.3	13.5	Special measurement			7	4.6
		837	4	40S	16E	5600	2-11	47.0	11.3	-	-	-	-	-



The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
War Department
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

City of Baker
City of Corvallis
City of LaGrande
City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
South Wasco Soil Conservation District
The Crag Rats-Hood River-Oregon





